

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) In a computer system, a method comprising the steps of:

providing a PSDL parser capable of automatically, without user intervention, extracting print job requirements from a PSDL file;

automatically, without user intervention, creating a proposed workflow for a printshop using said print job requirements extracted by said PSDL parser and resource knowledge recording resources in said printshop, wherein said resource knowledge includes information regarding job costs and availability in said printshop of available machines, machine operators, working progress and inter-process storage buffer levels and materials required to process said print job.

2. (Currently amended) ~~The method of claim 1 further comprising the step of:~~ In a computer system, a method of comprising the steps of:

providing a PSDL parser capable of automatically, without user intervention, extracting print job requirements from a PSDL file;

automatically, without user intervention, creating a proposed workflow for a printshop using said print job requirements extracted by said PSDL parser and resource knowledge recording resources in said printshop; and

executing said print job in said printshop using said proposed workflow, wherein said workflow is designed to operate within an environment having a set of autonomous cells and incorporates:

mapping said print jobs to one or more of said autonomous cells;

dividing said print jobs into sub-jobs within autonomous cells; and

invoking one of a pull-type, push-type or combination push/pull-type control policy to keep jobs flowing through the print shop even as random disruptive events occur.

3. (Previously presented) The method of claim 1 wherein said PSDL parser traverses said PSDL file and extracts the print job requirements for said print job from said PSDL file and forwards said print job requirements to a workflow schedule module, said workflow schedule module compares said print job requirements against available resources of the print shop and maps the sequence of steps required to perform the print job to available machines and operators in the printshop as indicated by a printshop resource availability module.

4. (Canceled)

5. (Original) The method of claim 1 wherein said proposed workflow is used to generate a job cost estimate.

6. (Original) The method of claim 5 wherein said job cost estimate includes material costs and labor costs.

7. (Original) The method of claim 6 wherein said proposed workflow and said job cost estimate are transmitted to a job submitter that submitted the print job for approval prior to processing said print job.

8. (Original) The method of claim 7, further comprising the steps of:

said job submitter substituting new materials to replace materials included in said proposed workflow;

creating a new proposed workflow which includes said new materials;

generating a new job cost estimate for said new proposed workflow; and

transmitting said new job cost estimate and said new proposed workflow to said job submitter for approval.

9. (Original) The method of claim 7, further comprising the steps of:

said job submitter substituting new machines to replace machines included in

said proposed workflow;

creating a new proposed workflow which includes said new machine s;

generating a new job cost estimate for said new proposed workflow; and

transmitting said new job cost estimate an said new proposed workflow to
said job submitter for approval.

10. (Original) The method of claim 7, further comprising the steps of:

said job submitter substituting new machine operators to replace operators
included in said proposed workflow;

creating a new proposed workflow which includes said new machine
operators;

generating a new job cost estimate for said new proposed workflow; and

transmitting said new job cost estimate an said new proposed workflow to
said job submitter for approval.

11. (Original) The method of claim 1, wherein said PSDL file is a Print Production
Format (PPF) file.

12. (Original) The method of claim 1, wherein said PSDL file is a JDF file.

13. (Original) The method of claim 1, wherein said PSDL file is a PCX file.

14. (Previously presented) In a computer system, a method comprising the steps of:

submitting a print job to a printshop having resources, said print job stored in
a printshop job description language (PSDL) file

automatically, without user intervention, extracting print job requirements from
said PSDL file;

comparing said print job requirements, including material and labor
requirements, from said PSDL file against available resources, status of the work-in-
progress, current schedule and available materials in the printshop; and

automatically, without user intervention, creating a proposed workflow for said

printshop from said print job requirements and from printshop resource knowledge resources, said proposed workflow dividing said print job into components and mapping said components of said print job to available resources of said printshop so as to set buffer space between machines to optimal levels while processing said print job.

15. (Original) The method of claim 14 further comprising the step of:
executing said print job in said printshop using said proposed workflow.
16. (Previously presented) The method of claim 14 wherein said resource knowledge includes information regarding job costs and availability in said printshop of machines, machine operators and materials used in processing said print job.
17. (Original) The method of claim 14 wherein said resource knowledge further includes information regarding operational speed and capacity of machines in said printshop used in processing said print job.
18. (Previously presented) In a computer system containing a network interface, said system connected to a network via said network interface, a method comprising the steps of:
providing a print job submitted by a job submitter and stored in a print job description language (PSDL) file located on a remotely located computer system that is connected to the network;
sending said print job stored in said PSDL file from said remotely located computer system to a printshop via the network and said network interface;
automatically, without user intervention, extracting print job requirements from said PSDL file;
comparing said print job requirements against available resources in the printshop; and
automatically, without user intervention, creating a proposed workflow for said printshop using a PSDL parser and resource knowledge regarding resources in the printshop, wherein said available resources are arranged into autonomous cells and said

workflow maps the print job to one or more of said autonomous cells.

19. (Previously presented) The method of claim 18 further comprising the step of:
executing said print job in said printshop using said proposed workflow, wherein said
workflow is designed to operate within an environment having a set of autonomous cells
and incorporates:

mapping said print jobs to one or more of said autonomous cells;
dividing said print jobs into sub-jobs within autonomous cells; and
invoking one of a pull-type, push-type or combination push/pull-type control
policy to keep jobs flowing through the print shop even as random disruptive events occur.

20. (Original) The method of claim 18 wherein said network is the Internet.

21. (Previously presented) The method of claim 18 wherein said resource knowledge
includes information regarding job costs and availability in said printshop of machines,
machine operators and materials used in processing said print job.

22. (Original) The method of claim 18 wherein said proposed workflow is used to
generate a job cost estimate.

23. (Original) The method of claim 18 wherein said job cost estimate includes material
costs and labor costs.

24. (Original) The method of claim 23 wherein said proposed workflow and said job cost
estimate are transmitted to said job submitter via the Internet for approval prior to said print
job being processed.

25. (Original) The method of claim 24, further comprising the steps of:
generating a new proposed workflow and job cost estimate in response to
said job submitter rejecting said proposed workflow and said job cost estimate.

26. (Canceled)

27. (Previously amended) A medium for use with a computer system, said medium holding computer-executable instructions for a method, said method comprising the steps of;

submitting a print job to a printshop having resources, said print job stored in a printshop job description language (PSDL) file;

automatically, without user intervention, extracting print job requirements from said PSDL file;

automatically, without user intervention, comparing said print job requirements against available resources, work-in-progress, current schedule and available materials in the printshop; and

automatically, without user intervention, creating a proposed workflow for said printshop, said proposed workflow dividing said print job into components and mapping said components of said print job to available resources of said printshop so as to set buffer space between machines to optimal levels while processing said print job.

28. (New) The method of claim 2 wherein said PSDL parser traverses said PSDL file and extracts the print job requirements for said print job from said PSDL file and forwards said print job requirements to a workflow schedule module, said workflow schedule module compares said print job requirements against available resources of the print shop and maps the sequence of steps required to perform the print job to available machines and operators in the printshop as indicated by a printshop resource availability module.

29. (New) The method of claim 2 wherein said resource knowledge includes information regarding job costs and availability in said printshop of available machines, machine operators, work-in-progress and inter-process storage buffer levels and materials required to process and print job.